

A METHOD AND KIT FOR DETECTING THE EARLY ONSET  
OF RENAL TUBULAR CELL INJURY

ABSTRACT

[0103] A method and kit for detecting the early onset of renal tubular cell injury, utilizing NGAL as an early urinary biomarker. NGAL is a small secreted polypeptide that is protease resistant and consequently readily detected in the urine following renal tubule cell injury. NGAL protein expression is detected predominantly in proximal tubule cells, in a punctate cytoplasmic distribution reminiscent of a secreted protein. The appearance NGAL in the urine is related to the dose and duration of renal ischemia and nephrotoxicity, and is diagnostic of renal tubule cell injury and renal failure. NGAL detection is also a useful marker for monitoring the nephrotoxic side effects of drugs or other therapeutic agents.